REMARKS

Applicants, their principal representatives in Germany, and the undersigned have carefully reviewed the first Office Action on the merits in the subject U.S. patent application, together with the prior art cited and relied on in the rejections of the claims. In response, the claims now pending in the application have been amended. It is believed that the claim now pending in the subject application is patentable over the prior art cited and relied on. Reexamination and reconsideration of the application, and allowance of the claims is respectfully requested.

The subject invention is directed to a printing group of a printing press, which printing group does not have a dampening unit and which is thus referred to as a waterless printing group. As is known in the art, these waterless printing groups typically utilize printing plates that have print image areas which hold ink or are hydrophilic, and areas that do not hold ink, or which repel ink and are hydrophobic. These waterless planographic printing plates cooperate with blanket or transfer cylinders to impart ink from these ink image areas to the material which is to be printed.

Such waterless planographic printing plates may be attached to their plate or forme cylinder by the insertion of bent ends of each plate into axially extending grooves formed in the surface of the plate or forme cylinder. As discussed at paragraph 010 of the Substitute Specification, if several of these printing plates are fastened on the plate cylinder one behind the other circumferentially, with their ends facing each other, the ends of the plates may be printed, at least lightly, on the material to be printed. Even though the plate ends are out of the plate image area that is to be printed, and even though the plate ends are ink repellant or hydrophobic, it is still possible that a faint image of these plate ends will be formed on the material that is to be printed.

The desired print image is transferred from the printing plates on the plate or forme cylinder to a printing blanket that is secured on the surface of a transfer cylinder. Ends of the printing blanket are received in a printing blanket end receiving opening on the transfer cylinder. That opening is arranged opposite to a first set of the adjacent printing plate ends which are located on the forme cylinder. Since that first set of plate ends is aligned with this printing blanket end receiving opening, there is no printing blanket on which the first set of plate ends can come into contact.

The printing blanket has a coating that is formed on a metal support plate. That coating is what receives the ink images from the printing plates and transfers that image to the material to be printed. In accordance with the present invention, that coating has a depression, in the form of a groove, formed on its surface and generally opposite to a second set of plate ends of the printing plates located on the forme cylinder. Such a groove has a depth of between 5% and 15% of a thickness of the coating which is on the printing blanket. The depth of the groove, and its alignment opposite the second set of plate ends insures that an ink image of this second set of plate ends will not be received on the printing blanket and thus will not be transferred to the substrate that is being printed.

In the Office Action of August 18, 2008, the applicant's election with traverse, was noted. The arguments presented were acknowledged as being persuasive but were asserted as being moot based on the rejection of independent claim 98 over the prior art cited and relied on in the Office Action. It is questioned whether the grounds of rejection advanced by the Examiner form a proper basis for an *a posteriori* finding of lack of unity of invention. Taken to its extreme, any art could be cited as rending the claimed invention unpatentable merely for the purpose of requiring restriction. In the present application, the undersigned has now cancelled the claims which are not dependent on claim 98. The claims which depend from claim 98, but which are not part of the group selected for prosecution in this application, have been withdrawn. Upon

the indication of allowance of claim 98, it is assumed that these withdrawn claims will be rejoined. Applicants again expressly reserve the right to file one or more divisional applications directed to the claims not selected for prosecution in this application.

Claim 98, 110 and 111, all the claims pending in the application, were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,920,824 to Holm in view of EP 0 182 156 to Stork. It was asserted that Holm teaches a printing group of a printing press, not having a dampening unit. The Holm printing group, as depicted in Fig. 10 of the patent, was characterized as having at least first and second waterless, planographic printing plates arranged on a plate cylinder and cooperating with a transfer cylinder having a printing blanket. The printing blanket was described as having a printing blanket end receiving opening that is located opposite a first set of the plate ends. It was admitted that the Holm references does not show or suggest a depression in the printing blanket, with that depression being located opposite to a second set of plate ends.

The secondary reference to Stork was cited as providing the teaching of a printing blanket with such a depression. It was asserted in the Office Action that it would be obvious to substitute the Stork printing blanket for the Holm printing blanket to arrive at the structure of the subject invention. For the reasons to be set forth below, the undersigned respectfully disagrees.

Referring initially to the Holm patent, the only accurate statement that can be made regarding the type of printing depicted is that it is offset printing. The fact that Holm does not describe or depict a dampening unit does not mean that the printing group may not, in fact, have such a dampening unit. It is clear that Holm is directed to an offset printing unit. It is not clear that Holm teaches or suggests the use of waterless planographic printing plates. Merely because Holm is silent as to the existence or lack of existence of a dampening unit cannot give rise to an inference as to the type of printing being performed. In fact, most offset printing

presses are not waterless printing presses. The lack of any discussion in the Holm reference as to the type of offset printing being accomplished would be much more likely to be taken as an inference that it is a typical offset printing unit, that includes a dampening unit, than would be the inference that it is a waterless printing unit. In the absence of any discussion of the type of printing being done in the Holm reference, there is no support for the Examiner's assertion that Holm has no dampening unit and/or uses waterless planographic printing plates.

The type of printing that is being conducted is of more than passing interest. As discussed in the Substitute Specification, the printing plates that are usable in waterless printing have print image areas which are ink accepting. The rest of the surface of the printing plate is intended to be ink rejecting. In typical offset printing, a dampening agent is applied to the plates in the intended ink rejecting areas. That dampening fluid helps those ink rejecting areas stay free of ink. In waterless printing, there is no dampening fluid. The ink rejecting areas rely on the hydrophobic nature of the plate surfaces to reject the ink.

It is possible that during the bending of the waterless plate ends, to provide the plate end portions which will be received in retaining grooves on the plate cylinder, that the hydrophobic coating on the printing plate may be compromised. This can lead to ink retention on the plate ends. The result is the formation of plate end prints on the substrate that is being printed. The Examiner is again requested to refer to the discussion at paragraph 010 of the Substitute Specification. The problem with plate end printing, that may occur in connection with printing groups of a printing press that does not include a dampening unit do not typically occur in a typical offset printing device. The unsupported assertion by the Examiner of the printing unit of the Holm reference being a waterless printing unit is thus of more than passing relevance to a consideration of the patentability of the subject invention. Since Holm does not describe or suggest a waterless printing unit, it cannot be concerned with the problem of printing plate end printing, which is believed to be an issue arising in waterless printing units.

The secondary reference to Stork does not appear to have an English language equivalent. As set forth in the English language abstract that was provided with the Office Action, there is shown in Fig. 1 of Stork a pair of printing couples. Each couple includes a plate cylinder with a single printing plate or forme 4 on it, and a cooperating blanket or transfer cylinder 1. The blanket cylinder carries a blanket 6 which is depicted in Fig. 3, appears to be provided with an inner component 12 and with an outer component 6.

In the embodiment of the Stork reference depicted in Fig. 5, there appears to be provided, at 9d, "...a device for relieving the blanket 6 from the contact pressure exerted by the plate cylinder...". As may be seen in Fig. 1, the plate cylinder 2 is half the diameter of the transfer cylinder 1. The two cylinders are typically placed in contact with each other at a certain level of contact pressure. As the two rotate with respect to each other, the contact pressure forms a tension in the blanket, which increases in the direction of rotation. This is what is being indicated by the increasing diameter dashed lines in Fig. 1. If the tension imparted to the blanket on the blanket cylinder 1 continues to increase, with each rotation of the printing couple, the blanket would try to move circumferentially around the surface of the blanket cylinder. The result would be either a deformation of the flexible upper layer of the blanket 6 toward the trailing end of the blanket, or a tendency of the blanket to try to pull its ends out of the blanket end retaining grooves, which are shown at 7.

The recess 9 that is provided essentially opposite to the blanket end retaining groove 7 is positioned so that it will align with the plate end retaining groove on the plate cylinder 2. As the plate cylinder 2 and the transfer cylinder 1 rotate with respect to each other, the contact pressure between them effectively causes a tension in the resilient blanket, almost in the form of a roll or a wave in the material which is pushed around the transfer cylinder by the plate cylinder. When the plate end groove on the plate cylinder 2 arrives at the recess 9 in the blanket, the contact between the two is released. The tension that has been built up in the

blanket, by the tendency of the resilient surface of the blanket to deform in the direction of rotation of the plate cylinder, is also released. As discussed in the abstract of the Stork reference, this tension release insures that each printed product will have the same printing quality.

The combination of the Holm and Stork references would not render obvious the claimed invention, as recited in currently amended claim 98. As discussed above, Holm is not directed to a waterless printing press. It does not carry waterless printing plates. If it were to be combined with the blanket cylinder of Stork, the result would still be the release of tension in the resultant blanket, not the prevention of plate end printing. In the subject invention, as recited in currently amended claim 98, the depression or groove in the printing blanket has a depth of between 5% and 15% of the thickness of a coating on the printing blanket. This depth is sufficient to insure that the plate ends will not be printed on the material that is printed by the printing blanket. The depth of the channel or recess 9b which is shown in Fig. 5 of the Stork reference is clearly much greater than 5% to 15% of the depth of the coating on the blanket. While it is admitted that patent drawings are not intended to be scale drawings, they still must be taken as accurate representations of the intended structure. In Fig. 5, the depth of the groove 9b is approximately 40% of the thickness of the coating 6, even assuming that the "gewebe" or fabric 14 is a part of the resilient blanket. A depth of between 5% and 15% of the depth of the coating on the printing blanket, as recited in currently amended claim 98, is suitable for the intended purpose of prevention of plate end printing. It would not be sufficient to accomplish the tension release as discussed in the Stork reference.

Claims 110 and 111 have been cancelled since their language has been included in currently amended independent claim 98. Claim 98 is thus the only claim now pending in the subject patent application. As discussed above, the other claims, which are linked through

claim 98, have been withdrawn but not cancelled. Upon the indication of the allowability of claim 98, these claims should be rejoined.

SUMMARY

Claim 98 is the sole claim now pending in the subject patent application. It is believed to be patentable over the prior art cited and relied on for the reasons set forth previously. Allowance of claim 98, rejoinder of the currently withdrawn claims that depend from it and passage of the application to issue is respectfully requested.

Respectfully submitted,

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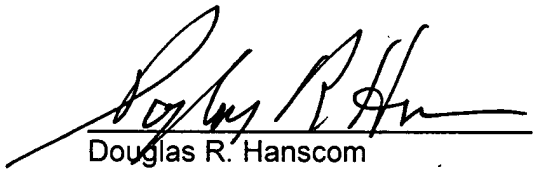

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